

REMARKS

In accordance with the foregoing, claims 1, 8, 12, and 19 are amended. No new matter is added. Claims 1-22 are pending and under consideration.

Allowable Subject Matter

Applicant acknowledges with appreciation the indication on page 10 of the Office Action that claims 5-7 and 16-18 are allowable if rewritten in independent form. However, since Applicant considers that claim 4 and 15 from which claims 5-7 and 16-18 respectively depend, define patentable subject matter, claims 5-7 and 16-18 are maintained in dependent form at the present time.

Claim Rejections Under 35 USC § 103:

Claims 1-3, 8, 9, 12-14, 19, and 20 were allegedly rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Application No. 5,504,759 to Inoue et al. (hereinafter "Inoue"), in view of U.S. Patent Application No. 6,397,000 to Hatanaka et al. ("Hatanaka"), and in further view of U.S. Patent No. 5,225,909 to Koizumi ("Koizumi"), and in further view of U.S. Publication No. 2001/0009417 to Asai et al. ("Asai").

Independent claim 1 is amended herewith to specify that "the predetermined bit rate is equal to or larger than a bit rate determined by the control part based on a remaining capacity of the recording medium in the first mode." The claim amendment is fully supported by the originally filed specification, for example, FIG. 10 and the corresponding description from page 20 line 22 to page 21 line 32.

The cited prior art references fail to disclose the control part

setting a predetermined bit rate to be applied by said coding/decoding part in case the given signal is output after being coded and decoded by said coding/decoding part without storage thereof in said recording medium, wherein the image recording apparatus functions in at least two modes, a first mode in which the given signal is recorded/reproduced on the recording medium, and a second mode in which the given signal is not recorded/reproduced on the recording medium but is output, and wherein the predetermined bit rate is equal to or larger than a bit rate determined by the control part based on a remaining capacity of the recording medium in the first mode

as recited in amended claim 1.

In FIG. 10 and col. 17, lines 13-15 Inoue discloses that a bit rate is converted into a standard bit rate. That is, according to Inoue, the standard bit rate is used as a criterion, and an

and

[...] wherein a bit rate of the second mode is equal to or larger than a bit rate determined by the control circuit based on a remaining capacity of the recording medium in the first mode.

Independent claim 19 is amended herewith to specify that “a bit rate of the second mode is equal to or larger than a bit rate determined by the control circuit based on a remaining capacity of the recording medium in the first mode.” The claim amendment is supported by the originally filed specification. Amended independent claim 19 and claims 20-22 depending from claim 19, patentably distinguish over the cited prior art references at least because the following recitations included in claim 19 are not rendered obvious by the prior art references:

a control circuit causing an input image signal to be automatically recorded into a predetermined recording medium even if no instructions for recording the input image signal is given, and, causing the image signal thus recorded into the recording medium to be accessible when predetermined instructions concerning the image signal is given, wherein

the semiconductor device functions in at least two modes, a first mode in which the given signal is recorded/reproduced on the recording medium, and a second mode in which the given signal is not recorded/reproduced on the recording medium but is output, and

[...] wherein a bit rate of the second mode is equal to or larger than a bit rate determined by the control circuit based on a remaining capacity of the recording medium in the first mode.

Claims 4 and 15 were allegedly rejected under 35 U.S.C. § 103(a) as being unpatentable over Inoue in view of Hatanaka, Koizumi, and in further view of Asai, and in further view of U.S. Patent No. 5,563,961 to Rynderman et al. (“Rynderman”).

Relative to claim 4, the Office Action relies on Rynderman to teach “a control part automatically setting a bit rate corresponding to one of the plurality of coding/decoding modes to be applied by said coding/decoding part according to at least a remaining storage capacity A (bytes) of said recording medium.” However the portion of Rynderman as well as the whole reference do not disclose or render obvious this feature of claim 4. Rynderman merely teaches that a rate of recording/reproducing to/from a disk is measured, and a compression rate is optimized according to the measurement. Rynderman is silent relative to and influence of “a remaining storage capacity” on setting the bit rate.

Therefore, Applicant respectfully submits that claim 4 and claims 5-7 depending from claim 4 patentably distinguish over the cited prior art.

input having a different bit rate thus is converted. In contrast to Inoue, according to amended claim 1 the predetermined bit rate is equal to or larger than a bit rate set by the control part based on remaining capacity of the recording medium.

At least for the above-specified reason, claim 1 and claims 2 and 3 depending from claim 1 patentably distinguish over the cited prior art references.

Independent claim 8 is amended herewith to specify that "a bit rate of the second mode is equal to or larger than a bit rate determined by the control part based on a remaining capacity of the recording medium in the first mode." The claim amendment is supported by the originally filed specification. Amended independent claim 8 and claims 9-11 depending from claim 8 patentably distinguish over the cited prior art references at least because the following recitations included in claim 8 are not rendered obvious by the prior art references:

a control part causing an input image signal to be automatically recorded into said recording medium even if no instructions for recording the input image signal is given, and causing the image signal thus recorded into the recording medium to be accessible when predetermined instructions concerning the image signal is given, wherein

the image recording apparatus functions in at least two modes, a first mode in which the given signal is recorded/reproduced on the recording medium, and a second mode in which the given signal is not recorded/reproduced on the recording medium but is output, and

[...] wherein a bit rate of the second mode is equal to or larger than a bit rate determined by the control part based on a remaining capacity of the recording medium in the first mode.

Independent claim 12 is amended herewith to specify that "a bit rate of the second mode is equal to or larger than a bit rate determined by the control circuit based on a remaining capacity of the recording medium in the first mode." The claim amendment is supported by the originally filed specification. Amended independent claim 12 and claims 13 and 14 depending from claim 12, patentably distinguish over the cited prior art references at least because the following recitations included in claim 12 are not rendered obvious by the prior art references:

a control circuit setting a predetermined bit rate to be applied by said coding/decoding circuit in case the given signal is output after being coded and decoded by said coding/decoding part without storage thereof in a predetermined recording medium, wherein

the semiconductor device functions in at least two modes, a first mode in which the given signal is recorded/reproduced on the recording medium, and a second mode in which the given signal is not recorded/reproduced on the recording medium but is output,

Independent claim 15 and claims 16-18 depending from claim 15 patentably distinguish over the cited prior art at least because the following feature of claim 15 is not rendered obvious:

a control circuit automatically setting a bit rate corresponding to one of the plurality of coding/decoding modes to be applied by said coding/decoding part according to at least a remaining storage capacity A (bytes) of a recording medium in which the given signal is recorded.

Claims 10, 11, 21, and 22 were allegedly rejected under 35 U.S.C. § 103(a) as being unpatentable over Inoue, Hatanaka and further in view of Koizumi, and Asai, and further in view of U.S. Publication No. 2003/0120942 to Yoshida ("Yoshida").

Yoshida does not correct or compensate for the above-identified failure of the cited prior art references to render obvious all the features of independent claims 8 and 19. Therefore, claim 10, 11, 21 and 22 are patentable at least by inheriting patentable features from independent claims 8 and 19 from which they respectively depend.

New claim 23

New claim 23 is directed to an image recording apparatus having a coding/decoding part, a recording medium and a control part. The claim is supported by the originally filed specification and claims. Claim 23 patentably distinguishes over the prior art at least by reciting:

a control part automatically setting a bit rate corresponding to one of a plurality of coding/decoding modes according to at least an available storage capacity A (bytes), wherein in at least one coding/decoding mode among the plurality of coding/decoding modes, the recording signal is recorded, and in at least one coding/decoding mode among the plurality of coding/decoding modes the signal is not recorded, a bit rate of the at least one coding/decoding mode in which the signal is not recorded being equal to or smaller than a rate determined according to the available storage capacity.

Conclusion

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

Serial No. 10/080,564

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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